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to the vital power. Provided this view be confirmed, many important consequences will result, which it is unnecessary for me to point out. At any rate, we may hope that with the aid of new observations the relation between sickness and mortality will be more clearly exhibited than it hitherto has been by those whose attention has been devoted to the subject.

I trust that these remarks, while pointing out errors, will be sufficient to show the great difficulties with which the exposition of the sickness and mortality in Friendly Societies is surrounded, and that to attempt to lay down minute laws and refined distinctions, even at the present time, is only laying obstacles in the path of inquiry.

Report of the Proceedings at the Statistical Congress, held at Brussels, 19th to 22nd September, 1853. By SAMUEL BROWN, F.S.S., one of the Honorary Secretaries of the Institute of Actuaries.

[Concluded from page 107, vol. iv.]

AFTER the inaugural address of M. Quetelet, the regulations for facilitating the business of the Congress were proposed and agreed to, and M. Ducpetiaux read a list of the papers and correspondence received.

The representatives of the Statistical Departments in the different Governments of Europe proceeded to give a summary view of the position occupied by statistics in their respective countries.

M. BERGSÖE (of Denmark) explained, that 20 years ago Government statistics, or works containing statistical tables, were scarcely known in Denmark. An absolute Government gave no encouragement to the people to pry too closely into their proceedings. But when it was decided to form Provincial Councils, the want of statistical information began to be felt. The delegates of the people could not give advice without knowing the actual condition of affairs; and on the proposition of one of the most distinguished statesmen (M. Jonas Collin), the King named, in 1833, a Central Statistical Commission, with power to publish information respecting the condition of the country. This Commission was composed of the most distinguished men in the different branches of administration; but no grant of money was made to them, nor had they any official staff. Each member of the Commission worked separately in his own department, with such means as were

granted from time to time by special order of the King. Several of the members laboured with great energy and capacity, and in the years 1835 to 1849 eighteen large volumes were published by the Commission, relating to nearly all the important subjects of statistics.

In 1849 Denmark received a free constitution. The Commission was then suppressed, as not being in harmony with the new order of things, and a new Central Statistical Department created, consisting of seven *employés*, the head of the department having authority to sign for the different Ministers in statistical matters. At present M. Bergsøe held this post, together with his appointment as Professor of Political Economy in the University of Copenhagen; and under his direction, ten volumes of statistical information on various important subjects had been already published. The grant for the expenses of this department was 35,000 fr. (£1,400) per annum.

In Denmark the Government only has given attention to statistics. There are no societies, except that the Royal Society of Medicine at Copenhagen has a permanent committee for medical statistics. The Provincial Councils publish nothing; and no great assistance is derived from the communes or officials in provincial towns, but rather the contrary. It is to be hoped that, with the progress of civilization, men will begin to understand that it is by such inquiries the statesman must learn the real evils of society, and be enabled to devise the most suitable measures for their relief.

M. DIETERICI (of Prussia) traced the origin of statistics in Prussia to the King Frederick William I., by whose order the provincial administrations and the Council of Ministers applied themselves to the question of what was the actual population of the country; but the questions proposed were answered rather by calculations than by a census. Frederick II. continued these labours, and was the real founder of the permanent statistics of the country. Since 1748, excepting during some years of war, the population of Prussia has been annually ascertained.

The Provincial Governments were ordered to number the inhabitants, distinguishing those in the town from the rural districts. Some of these documents contain remarks in the handwriting of Frederick II., and every year he required these population tables to be returned; so that it may be said that Prussia had already an official Department of Statistics. At this time these inquiries began to take rank as a science under the labours of Sussmilch, who, in

his *Gottliche Ordnung*, prepared the tables of births and deaths for 1,056 villages.

In 1805, under the auspices of the King Frederick III., a Central Statistical Department was organized, by the labours of M. Leopold Krug and the influence of the Minister de Stein, to collect the statistics of the provinces; but the war of 1806 interrupted the plan. After the peace of Tilsit, Prussia was reorganized, and M. Hoffmann, then Professor in the University of Königsberg, was named Councillor in the Ministry of the Interior; and he made the first official report on the Statistical department of Berlin. By the care of M. Hoffmann, tables were compiled and some published, on the following subjects, at first every year; but afterwards the reports under the heads 1, 3, 4, and 5 were collected every three years, and only those of births, marriages, and deaths annually:— 1. General statistics; 2. Births, marriages, deaths; 3. Churches and schools; 4. Medical statistics; 5. Statistics of trades and manufacture. These tables, with some additions, are still arranged in the same form as under M. Hoffmann's management. By the advice of M. Alex. Humboldt, a meteorological section has been added to this department, organized in a manner worthy of the founder of this science; reports are received from 34 stations in Prussia, and scientifically arranged and published, under the skilful direction of M. Dove.

In 1834 the Zollverein was formed. One of the leading points in every treaty is that a general census should be taken every three years. It is made with great exactness, as on its results depends the appropriation of the customs' revenue amongst the different States of the Zollverein. Every inhabitant is taken according to his place of residence at the time, except persons stopping at hotels, who, as strangers, are not counted.

M. Dieterici then explained, that since he had had the honour of being named head of the department, he had published five volumes of statistics on the Zollverein. Three other volumes, to be followed by three more on general subjects, had been published, and also a journal devoted entirely to statistics, which appears once a fortnight, and in which a place is reserved for extracts relating to foreign countries.

M. DE HERMANN (of Bavaria) stated that in Bavaria statistical inquiries, which were conducted only by the Government, formed a department attached to the Ministry of Commerce and Public Works. The correspondence with the officials from whom statistical information is required passed through the ministerial depart-

ment. As to matters connected with the Ministry of Public Works, the orders to the provincial authorities emanate from this department; but those which concern any other branch of administration, from the Ministry of Commerce. The statistical returns so obtained are transferred to the Ministry of Commerce, arranged and prepared for publication by the Statistical Department. Any correspondence necessary with foreign countries is conducted through the Ministry for Foreign Affairs, employing the usual diplomatic agents.

M. De Hermann then explained that the questions did not originate from the Statistical Department; but if, in the Ministry of Commerce or any other branch of administration, special returns were required, the official charged with the inquiry put himself into communication with the head of the Bureau de la Statistique; and, having agreed together on the researches to be made, the Ministry of Commerce initiated the business to the other department, by whom the orders were issued and the returns obtained, and transmitted to the former.

M. LE BARON CZOERNIG (of Austria) said that a Statistical Department had been established in Austria in 1828, by the order of the Emperor Francis, with the special view of aiding the different branches of superior administration in the State. It was attached to the Supreme Court of Accounts, and all departments were called upon to remit to this department the information which had been demanded from them. From these returns tables were annually prepared, and lithographed for the use of the various branches of Government. No other use was made of them. M. le Baron de Kübeck, now President of the Council of the Empire, who was, in 1840, President of the Supreme Court of Accounts, proposed to form a special Statistical Department, and unite the scientific to the simply administrative part of statistics. Immediately afterwards, the Baron de Czoernig was appointed to preside over this department, and prepare the materials for publishing the official statistics of Austria. It was his aim to include all branches of political economy, agriculture, mining, manufactures, and commerce, as subjects of which the general knowledge was most required by the public. The returns so prepared were then for the first time published, with the addition of tables of population, public instruction, and judicial statistics.

In 1844 the entire publication of the statistical returns was authorized, including even what is purely administrative, so that a most complete and faithful *exposé* was made to the public of the

whole financial condition of Austria, of the resources and industry of her provinces, and the manner in which they could be made to contribute to the national wealth. For example: the tables showed that in 1841, in the administration of tobacco (a Government monopoly), 28 millions of cigars were manufactured; whilst the present production has increased to 800 millions, and would be much greater if the manufactories could produce as fast as the consumption increases.*

The total production of the manufactures of Austria appeared in 1845 to be of the value of 2,500 millions of francs (£100,000,000)—the same total value which was given by Schnitzler as the result of the cotemporary manufactures of France.

The Statistical Department in 1848 was attached to the Ministry of Commerce and Public Works, the branches of inquiry embraced therein forming the principal subject of statistical research.

Baron Czoernig then entered into a short statement of the mode in which the Statistical Department was carried on, so as to accomplish the purpose for which it was formed. All the information and returns which the different branches of administration may have required and procured for special purposes, and which would have been laid aside amongst the archives when the temporary object is achieved, are transferred to the Statistical Department, where these returns, frequently of the highest importance, become the subject of further labours.

If the branches of administration, before collecting the information they require, confide to the Statistical Department the care of preparing the forms and queries, the results become so much the more valuable for future use. In this manner a sure check is established, when the facts obtained and arranged under different points of view agree in their final results. The critical examination of statistical returns must be used with more severity in cases where they are obtained in a great degree from private individuals; as, when the question is respecting the manufactures or interior commerce of the country. The statistical inquiries into manufactures have been attended with the most satisfactory results, whenever private individuals have been questioned as to the force of machinery or power of production, the raw or partly prepared material consumed, as well as the quantity which enters into foreign trade, which are generally known to the larger establishments in

* May we not infer that this is a strong argument against State monopoly? since it is reasonable to suppose that, in such a case, competition would lead to an increase in the number of manufactories, so that the wants of the public would be supplied as they arose. (S. B.)

direct connection with the manufacturers. By an acquaintance with the technical part of the different processes and their combined operation, we may arrive, even without a direct and detailed valuation of industrial products, at an approximation very near the reality, and amply sufficient for all purposes of statistics.

Baron Czoernig concluded by enumerating the periodical and other publications under the direction of the statistical administration of Austria. These are—1. The official *Statistical Tables*, published annually, of which those for the two years 1847 and 1848 would appear in a few weeks. 2. The *Statistical Communications* have been published, for the last four years, monthly or quarterly. They contain the reports of the Austrian Consuls, especially those in the East, on the commerce of their countries, other subjects omitted in the great work, and the *resumé* of the most recent information. 3. The *Tables of Foreign Trade—Import, Export, and Transit*—are published annually. The volume for 1852 is in the press. 4. The *Austria*, a journal of political economy, founded by the order of the Minister of Commerce: and, finally, 5. The great *Ethnographical Map*, which has been ten years in course of preparation, and the text of which is not yet finished, completes the list of Government publications.

M. LÉGOYT (of France) explained that in France statistical labours are divided amongst the different departments of Government, each one publishing the documents relating to its own branch of business. Some Ministries have, however, special Statistical Departments attached. The Minister of Justice publishes the criminal statistics, which are confided to the care of M. Arondeau, one of the most eminent statisticians of France. The Finance Ministry possesses also a department for custom-house statistics.

In 1834 a Department of General Statistics was established in connection with the Ministry of Commerce, and placed under the direction of the eminent M. Moreau de Jonnès. Since that date there have been published by him about thirteen volumes on different subjects of political economy—population, administration, finance, commerce, agriculture, manufactures, &c.

In 1852 M. Legoyt succeeded M. Moreau de Jonnès on his retirement, and soon perceived, from the correspondence of the Prefects, that too much was required from the provincial authorities, who had neither time, talent, nor knowledge sufficient for many of the researches they were called upon to make. He proposed therefore to associate private individuals with the agents of

the Government; and by a decree of 1st January, 1853, a new system was established. By this decree, in every canton a Statistical Committee has been formed, the members being named by the Prefect. It is subdivided into communal subcommittees. As an experiment, a form of questions has been prepared for the present statistics of agriculture, and, to a limited extent, of manufacturing industry. Each subcommittee is required to fill up the form submitted to them and send it to the cantonal committee, where it is discussed; and this committee may consult with those members of the subcommittee who have filled up the form, in order to resolve any doubts or difficulties which may suggest themselves. The separate forms for the communes being agreed to, the cantonal form is prepared, and, when adopted, referred to the Subprefect, who submits it to a double verification—first by the Central Commission of the arrondissement, and secondly, as far as regards agriculture, to the Chamber of Agriculture. These verifications being finished, the various cantonal forms are sent to the Prefect, who submits them to a final examination, recapitulates the results, and forwards them to the Minister of the Interior.

The system is still only at its commencement, and whether it will work satisfactorily not yet ascertained.

The General Statistical Department corresponds, through the Minister, with the Prefects, to procure the documents which result from the simple performance of their administrative functions. Thus the Prefects transmit to the Commission documents respecting population, the management of the *enfants trouvés*, mendicity, &c.

Mr. WILLIAM FARR (of England), previous to describing the organization of statistics in England, requested permission to state that he had been deputed to assist at the Congress by the Registrar General, with the approbation of the British Government, and had been charged to make a report on the proceedings of the Congress. This fact, and the communication which he had to make on the part of English statisticians, were proofs of the desire of England to aid in accomplishing the important objects set forth in the programme—to communicate the results of her experience, to gain new information from the distinguished talent here assembled, and to consider with the utmost attention any plan that might be proposed to produce uniformity and the means of comparison between the statistical results of all countries.

The fact of uniting all the statisticians of Europe, engaged as they were in observing and analyzing social phenomena, is in itself a benefit for us and for science—a benefit which we owe to

the enlightened character of the Belgian Government, so honourably represented by the President, who had so long cultivated the field of statistics, and whose reputation and labours were, he ventured to say, fully appreciated by all the statisticians of Europe.

Mr. Farr then proceeded to describe the system adopted in England for procuring statistical information, and analyzing the facts and consequences resulting therefrom. He enumerated the various departments of Government having the power of making statistical inquiries through their local agents and officials—the army and navy, the Board of Customs and Taxes, the Post Office, the Poor Law Board, and the Registrar of Population. All departments publish information in different forms, which is more or less statistical. The Chancellor of the Exchequer, in making an annual statement of the financial position of the country, lays before the House of Commons a general account of the revenue and expenditure of the country. The two Houses of Parliament have the right of calling for information on all branches of the public service, and of naming committees for special investigations, who take the opinions not merely of public functionaries, but of men of science and any others versed in the particular subject of inquiry; and the evidence is printed in *Blue Books*, frequently containing facts of the highest interest and importance.

The statistics of customs and other branches of commerce have been long preserved, and, since the time of Mr. Porter, have been annually published by the Board of Trade. At present the publication is under the direction of Mr. Fonblanque. Mr. Valpy, who is preparing the last volume, has explained the publications of the Board of Trade in a note to the President of the Congress.

Criminal statistics are furnished to the Home Minister from the criminal and police courts, and are analyzed and discussed by Mr. Samuel Redgrave, in a letter to the President.

The statistics of the army are prepared by Colonel Tulloch and Dr. Balfour, and those of the navy by Sir William Burnett and Dr. Bryson.

Other statistical publications emanate from the Poor Law Board.

The General Register Office, under the direction of the Home Minister, is charged with the execution of the statute for the registration of the births, deaths, and marriages; and the Registrar General, in accordance therewith, lays the returns before Parliament.

Mr. Farr then went into a description of the mode of taking

the census, and the results of the last census, which would form a very interesting statement, if space permitted.*

Mr. Farr then explained that, besides the official departments, there were other means in England of following out statistical researches, as it was not the custom for the public to leave subjects of such general interest entirely in the hands of the Government.

The Statistical Society of London, of which H. R. H. Prince Albert is the illustrious patron, and which was represented at the Congress by Viscount Ebrington, has made many important researches; and its members have furnished many papers of the highest interest, both for discussion at its Sessional Meetings and for publication in their *Journal*.

Amongst the private individuals who have contributed to the diffusion of statistical knowledge, are the late Mr. Porter, and Mr McCulloch — the former distinguished for the clearness of his writings, and the latter no less celebrated for his efforts to analyze and discuss statistical subjects, than for his brilliant theories on political economy.

The PRESIDENT stated that there were two representatives from Saxony present, M. Weinlig and M. Engel, and called upon one of those gentlemen to favour the meeting with information as to the progress of the question in their country.

M. WEINLIG mentioned that in the kingdom of Saxony M. Engel was the head of a Department for Statistics attached to the office of the Ministry of the Interior, which was also the Ministry of Commerce, of which he was himself Director. In two years they had published three quarto volumes, containing the census, the movement of the population, and the population divided into professions and occupations. M. Engel had just completed the publication of another volume, containing a concise *resumé* of the statistics of the whole country.

M. RAMON DE LA SAGRA (of Spain) expressed his embarrassment in following speakers who had made reports for countries so rich in the results of statistical labours; but his Government had deputed him with a view of laying the foundation of an improved system in Spain. Coming late into the field, they had the advantage of being able to select and adopt the best without having to destroy the past. Notwithstanding the length of time that statistical labours had been known in Spain, dating even from the fifteenth century, they were still unorganized as a science.

* I would beg also to refer the readers of this report to the very clear and concise summary in Mr. Cheshire's pamphlet, *The Results of the Census of Great Britain in 1851; with a description of the Machinery and Processes employed to obtain the Returns.*

Physical and physiological statistics promised well for the future. A remarkable map, still in course of correction, with the recent discoveries, had nearly been completed, of Spain considered in the point of view of its geography, geology, mineralogy, and agriculture. The records of the climate had not been much attended to, though a monthly meteorological report was made from the observatories of San Fernando and Madrid.

As to the statistics of population, they had no census of the population at the present date, but the Minister of the Interior was actively engaged in the preparations for one. The records of births, deaths, and marriages were carefully preserved in the Church registers; but those particulars not connected with religious rites were still wanting, such as the number of the stillborn, the conditions of the parents, &c. The provisions of municipal law, however, recently promulgated, which resemble the French, will, with the transmission of the Church registers, which the Mayors send to the Prefects to be forwarded to the Ministry of the Interior, enable a report on the movement of the population of Spain to be published shortly.

As to medical statistics, the only information extant is found in some of the medical journals, which notice the mortality, epidemics, &c.

The statistics of mining may be found in the *Journal of the School of Mining*, and in other private publications at Madrid. The report of M. Caveda, the Director of the Department of Commerce and Industry, made to the Government respecting the Great Exhibition of 1850, affords a history of production in the principal branches of industry in the Peninsula.

In official publications on commercial statistics, an interval of more than thirty years since the beginning of this century has occurred, and those preceding are not published with regularity nor on any uniform method. Recently, the publication of tables of foreign commerce has been resumed, under the title of *Balanzas*. Since the institution of a constitutional *régime*, the Ministers are obliged to present to the Chambers a budget, and the summary of the revenues of the State is also published.

With regard to moral and criminal statistics, some information may be obtained as to schools and the number of scholars frequenting them, from the *Bulletin of Public Instruction*; and as to the state of crime in the south, some curious details in a document published about ten years ago, on criminal statistics, in the Balearic Isles; but he would more especially refer to an important

work by a private individual, M. Pascual Madoz, Member of the Chamber of Deputies, entitled *Geographical and Statistical Dictionary of Spain*, in 16 large vols., 8vo., in which the author, by his agents and *employés*, has taken every pains to make his work of the highest value, using all the means which in general Governments only can command.

M. Ramon de la Sagra then entered into a statement of the much more complete statistics collected in the Spanish colonies, especially Cuba. Tables prepared officially by the Government of the colony, on population, commerce, exports and imports, revenues and expenses, and many other similar topics, have been published, commencing with the year 1817 to the present time, from which he had been enabled to complete the two first volumes of *The History of the Island of Cuba*, which he had presented to the Congress.

M. MITTERMAIER (of the Grand Duchy of Baden) desired to prove that his country was not behind in these inquiries. The Grand Duchy of Baden was the first of the German States which published an annual report of criminal statistics, in which for 15 years they have followed the model of the French reports. Since then the statistics of civil justice have been added. Each department publishes its statistical labours, and last year a valuable report on the taxes, commerce, and riches of the Grand Duchy appeared from the Ministry of Finance. Private journals and a medical journal also contain contributions. A Statistical Department has recently been established in connection with the Ministry of the Interior, at Carlsruhe, and which, though not yet completely organized, has issued to the communes a series of 45 questions on the important subject of the moral statistics of the country.

M. LE CHEVALIER BERTINI (of Sardinia) thought that the organization of statistics in Sardinia was too well known to many present for him to occupy much of their time. It accorded very nearly with that of Belgium. With the exception of her geographical configuration, Sardinia has much analogy with Belgium, by her constitutional system and the different branches of her administration. She looked upon Belgium as her elder sister; and the sovereigns of both countries, types of constitutional kings, were alike honoured and beloved by their subjects.

A Statistical Department was instituted by Charles Albert at the commencement of his reign, with which 37 Juntas or Provincial Commissions, each composed of six members, are in correspondence. These Juntas collect information in each commune from the local authorities, the curés, and the principal inhabitants.

The Central Commission publishes the results of these labours under the title of *Informazione Statistiche*, of which four volumes have already appeared. The one of last year contains medical statistics. Besides these volumes, two reports have been prepared on the administration of civil justice, of which the part relating to criminal statistics will appear shortly, and that relating to education, primary and secondary, has already been published.

The President of the Ministerial Council, the Ministers of Finance, of Public Works, and the head of the Post Department, publish monthly accounts in the *Official Gazette* of the produce of the indirect taxes, the State railroads, the postage, &c. The annual budgets presented to the Chambers by the Ministers, as well as the reports of the Intendants General to their respective Councils of Administration, contain many important statistical details.

Amongst other works may be mentioned the general calendar published every year by the Minister of the Interior, and a statistical annual which appeared in 1852 and is rich in varied information on the population, industry, commerce, navigation—railroads finished, in course of construction, or projected, &c.

M. DE BAUMHAUER (of the Netherlands) stated that the Dutch Government had established in 1826 a Department of Statistics, by the officials of which two volumes on general statistics had been published, and that the principal object of their attention had been the population, collecting the documents relating to births, deaths, and marriages since the year 1804, and in some communes from an earlier date. They also arranged the census of 1829. Their functions ceased in 1836; but a third volume, completing the other two, appeared in 1836.

Since 1826, M. Lobatto, Professor at Delft, has published by order of the King an annual relating principally to population and the statistics of prisons.

In 1840 a census was taken, being entrusted to the Governors of provinces, and the results were published in a small volume.

On the revision of the fundamental law in 1848, two Statistical Departments were established—one in connection with the Ministry of the Interior, and the other, of which M. de Baumhauer is the head, with that of Finance. This department has published, since 1815, reports on the statistics of education and of benevolent institutions. Three volumes of reports, the first of which contains the years 1847, 1848, and 1849, have been published respecting criminal statistics, by the Ministry of Justice.

Reports respecting navigation and foreign commerce have been published regularly by the Ministry of Finance for the years 1846 and subsequently, of which the seventh volume is in course of preparation; besides detailed reports on the finances, which are laid annually before the legislative chambers.

Since 1849, the Ministry of the Interior has been actively engaged in the third census (taken, with the exception of agricultural and industrial statistics, in the same manner as in Belgium), the results of which are just published. They comprise benevolent institutions and schools. A volume is devoted to each of the eleven provinces, and the twelfth (of 1,000 pages large folio) contains the recapitulation for the whole kingdom. Since then, the reports made by permanent deputations to the Provincial Councils have been deemed of greater importance, and an attempt has been made, by adopting an uniform plan, to improve these valuable records, which form the basis of the statistics of the country.

The Ministry of Justice has published regularly, since 1847, a statement on judicial, criminal, and civil statistics, which has appeared for five successive years; and the Inspectors of Hospitals for the Insane, which are under the control of Government, also publish annually detailed and interesting accounts.

The Colonial Ministry gives annual reports of the statistics of the Indian colonies, both eastern and western.

M. SICK (of Wurtemberg) explained that the kingdom of Wurtemberg possessed a Bureau (founded in 1820, under the orders of the Minister of Finance) for Statistics and Topography, of which M. Hardegen was the chief. Under the last head, the *Topographical Atlas* of the kingdom has just been completed, on a scale of $\frac{1}{500,000}$, and a *General Map* on a scale of $\frac{1}{2,000,000}$.

The *Description of the Kingdom*, by arrondissements of administration, called *Oberamter*, is in course of publication; 33 volumes have appeared, edited by four of the nine members who constitute the Bureau. There is also published annually the movement of the population (births, deaths, changes of domicile), a report on the prices of corn, wool, and statistics of fires, with a summary every ten years. Every three years, also, an enumeration is made of domestic animals. The produce of vines appears annually; but the complete statistics of agriculture are still deficient. Instruments for meteorological observations have been established in five telegraph offices, and the results will be shortly printed in the *Württembergische Jahrbucher*.

M. DE MEYER DE KNONAU (of Switzerland) considered that, though there was no Government Department for Statistics in Switzerland, yet much progress had been made since 1830. For half of the 25 Cantons, there were reports more or less complete ; but the most noticeable were those of the Cantons of Basle, of St. Gall, and Zurich. The private philanthropic and industrial societies numbered amongst them many individuals who had distinguished themselves in these pursuits. He would particularly mention M. Etienne Frascini, author of the *Statistics of Switzerland*, written in Italian, since translated into German, and about to be translated into French. M. Gonzenbach, also, a distinguished member of the Government, had published interesting works on the manufactures of Switzerland. There is also a minute topography of all the Cantons, of which M. de Knonau was himself the author.

The PRESIDENT returned thanks to the various speakers for their very valuable communications.

M. GARNIER (of France) inquired if no communication had been received from Russia.

The PRESIDENT replied that Russia had no representative in the Congress. The reason was indicated in the reply they had received, and which was not without interest in a statistical point of view.

The different sections having been constituted, for three classes of subjects, the meeting adjourned at half-past two o'clock for the following day.

The speeches and explanations offered by the delegates from the different Governments of Europe to the Statistical Congress have been given somewhat at length, because they serve to show the progress and present position of statistics in their different countries. They also enable those who take an interest in these subjects to form an idea of the publications in foreign languages which are published by Government authority, and to which therefore they may have recourse with confidence. But the space allotted in this *Magazine* will not allow me to give more than a very brief summary of the further proceedings of the Congress, and of the interesting discussions which occupied the following three days.

The subjects were referred to three different Sections for discussion. The first comprised Population, Survey and Valuation of Land, Emigration, &c.—M. Quetelet, President ; the second, Agricultural and Commercial Statistics—President, M. Horace Say, of

the Paris Chamber of Commerce; and the third was devoted to the Statistics of the Social Condition of the People, Pauperism, Education, Crime, &c.—M. Viisschers being the President.

The various subjects had been arranged in a programme, the heads of which could during the mornings be discussed in the different Sections at the same time; and reporters having been selected from each Section to state the alterations proposed, and what was finally carried, with the reasons for the changes, the resolutions were in the afternoon sittings submitted to the consideration of the whole Congress united, and confirmed or altered by them. Time was thus saved; whilst the duty charged upon the reporters from the Sections gave rise to many lucid and eloquent speeches, comprising a *resumé* of all the arguments *pro* and *con.*, on the subjects debated in their respective Sections.

The summary of the conclusions of the First Section was—

1. That for the organization of statistics and the adoption of an uniform system of inquiry and publication, without omission or repetition of details, it is necessary that the officials engaged in preparing the tables and statements for the public should use the same divisions and the same terms to denote subjects of the same kind.

2. That every Government should establish a Central Statistical Commission, or some similar office, composed of the heads of the various departments, and others, who by their knowledge and experience may combine the practical working with the science of statistics.

3. That as accuracy in minute details can be best ensured on the spot, local Commissions should be established in the provinces, to be in communication with the Central Commission; the advantage of which, besides the individual knowledge of local peculiarities, which might escape the notice of strangers, will be felt in overcoming, by their personal interest, the prejudices and opposition with which Government inquiries are sometimes received.

4. That delegates from the Central Commissions of different countries should periodically assemble in an international Congress, whose duty it would be to reduce the documents for publication to a uniform and the most simple plan, and at the cheapest rate of charge to the public.

The second question submitted to this Section was the general census of a population—the information to be required, and mode of collecting it.

In Belgium, as in England, the census is taken on a given day,

and every individual is entered on the lists for the place where he passed the night. As to the date, there is scarcely any fixed arrangement. In France and England it has been in the months of April and June; in Norway, in November; in Denmark, in February; in Belgium, in October; and in the German States, in December. The periods have been equally varied; in England, the United States, Sardinia and Norway, and in the Netherlands, the period is decennial; in the German States, triennial; and in other countries, as in Belgium, at indeterminate periods. The resolutions agreed to were—

1. That the census of a population should comprise the name of every individual actually in the country (*population de fait*) at the date of enumeration; but that information should also be required as to individuals legally domiciled, though absent at the time (*population de droit*).

2. That the interval of taking the census should not exceed ten years, and that it should be in the month of December.

3. A special return for each family.

4. Special agents to be employed to deliver and collect the lists; and either to see that they are properly filled up, or to enter the necessary particulars themselves, as obtained by them from the inhabitants.

5. The returns to include—full name, age, place of birth, language, religion, civil condition, profession, residence (distinguishing temporary from permanent), children receiving public or private instruction, houses by stories, with the number of rooms to each family, gardens, &c.; to distinguish also individuals suffering under such infirmities as affect the labour of the country, as, the blind, the deaf and dumb, the insane in public and private establishments.

The registers of population should comprise the facts relating to each family; and the following important inquiries were recommended to ascertain the movement of the population:—The births, legitimate or illegitimate, according to sex and the ages of the parents; number of twins and stillborn; the deaths, marriages, and divorces, all classified according to profession, by ages and in months, and the causes of death to be certified by medical men; the ages of persons contracting marriage to be stated, with their civil condition or profession. The causes of death and the varying nomenclature of diseases formed a very important subject of discussion, and the necessity of adopting some general nomenclature applicable to all countries was reserved as a point worthy of consideration at the next Congress.

Two other subjects of great interest were also discussed in the First Section; the former as to the survey and valuation of land, and the second as to emigration. The radical reform in the method of survey, adopted by France in 1808, has formed the basis of all the modern improvements. It was recommended that the general survey of a country should be on a scale of 1-2,500, but varying, according to the minute subdivision required, to 1-1,250, or even 1-500, and the general index maps to be 1-10,000 or 1-20,000; that the maps should comprise the name of every proprietor, and the nature of the soil and cultivation of every property; that from a careful comparison of prices of produce and rents of farms for several years, the annual value should be affixed against each property, according to the quantity under various kinds of cultivation; and, lastly, that the changes in limits, in mode of cultivation, in ownership, and in value, should be noted, so that the survey might be continued as a permanent record of the property and produce of the country.

The question of emigration has lately become of the most vital importance, especially in this country; and the information to be sought for must be considered in reference to the influence of emigration on the fortunes of the mother country, and the effects it may produce. It should comprise the name, place and date of birth, sex, age, religion, profession or occupation, place of embarkation and destination, and the motives of emigration, if they can be ascertained, together with the capital which the emigrant takes with him, and the average cost of the passage to different places; number and tonnage of emigrant ships; deaths on the passage, with their causes; and the number sick, with the nature of the diseases, on their arrival. The resolutions originally proposed led to much discussion, and were modified so as to avoid as far as possible questions which might be considered too inquisitorial.

To the Second Section was referred the very important question of agricultural statistics, and the report thereon was brought up by M. Cogels on the last day of the Congress. The time at which such statistics should be collected is fixed in all countries as it were by nature, being the period when the labours of the agricultural year are finished, and when those for the next season commence; and although various countries may differ from each other as to the nature of their products, and consequently as to the period of the year when the required information can be obtained, yet it was considered by the Congress—

That in order to compare the agricultural products of different

countries, the facts should be collected simultaneously, either for the same agricultural year or for a period which may be considered as expressing a general average; and that, unless unavoidable difficulties intervened, or unless the intervals were too long, the inquiries should be conducted at the same time as the census of the population.

That special agents, capable of verifying and correcting the facts stated, should be employed to collect the returns, which should be left with each occupier long enough to enable him to fill in all the particulars ready for the Inspector's visit; and that in every district the returns should be revised by some local Committee, and reduced into some general form with which they should be furnished, so as to allow of being compared with others.

That the particulars required should be such as to enable a general knowledge to be formed of the capability of a country in its agricultural productions at any given time—its soil, the weather and other natural phenomena, the power and instruments for cultivating the ground, the means of supplying the exhaustion or improving the nature of the soil, agricultural stock, rotations of crops, the laws of production, and the relations of agriculture to society, or the regulations under which its operations are carried on. These inquiries, however, though desirable, were thought by the members too minute to be prescribed, and the report finally adopted was in more general terms.

This Section also considered the questions of industrial and commercial statistics, which, after discussion, were somewhat modified from the original propositions, and divided into four branches: (1) Agricultural, (2) Mining, (3) Manufacturing, (4) Commercial statistics. The report of the discussion on the last subject was made by M. Partoes, of Belgium. In the subdivisions of commercial statistics, it was proposed to distinguish the imports and exports by land, rivers, canals, and by sea—the last showing also the quantities brought by national or foreign ships. The tables should comprise the total quantities in weights, measure, or number, and the valuation with and without the duties imposed. Under the head of maritime service it was proposed to require the number and tonnage of ships both home and foreign, with the places of their destination and their ports of departure, as well as the statistics of the mercantile service and the coasting trade, the number and tonnage of the vessels at present existing, with those that are constructed and purchased in the year, or lost and sold; the number of sailors, also, to be enumerated. The Section also recommended,

that previous to the ensuing meeting of the Congress a report should be prepared by the Commission Centrale de la Statistique de Belgique on the commercial tables which have either been published or collected in different countries, pointing out the discrepancies in their form and the deficiencies in the information which they exhibit.

The report of the discussions of this Section on manufacturing statistics was eloquently made by M. Horace Say, on the third day of the Congress. His Majesty the King of the Belgians, accompanied by their Royal Highnesses the Duc de Brabant and the Comte de Flandres, and attended by his Ministers and a numerous suite, honoured the Congress with his presence on this occasion. At one o'clock, the approach of the King being announced, M. Quetelet, the President, with M. Piercot, Minister of the Interior, M. Liedts, Minister of Finance, and M. Chas. Faider, Minister of Justice, with the Vice Presidents and other officers of the Congress, went to receive His Majesty at the foot of the grand staircase, and many of the foreign members of the Congress had the honour of being introduced. The King and the Princes having taken the seats prepared for them near the President's table, M. Quetelet addressed His Majesty in the following terms:—

“SIRE,—En venant assister aux travaux de ce Congrès, votre Majesté donne une nouvelle preuve qu'elle s'associe de cœur à tous les efforts que tentent les peuples pour resserrer entre eux les liens d'amitié et de bienveillance qui doivent les unir, et pour développer, dans le domaine des sciences politiques, l'esprit d'ordre et les lumières qui concourent si puissamment à leur bonheur.”

His Majesty having graciously received this address, and ordered the business to proceed, M. HORACE SAY entered into an eloquent discourse on the connection of political economy with statistics, and on the light which these inquiries would throw on the important question of the condition and prospects of the industrial classes. It was proposed to ascertain the number of workpeople—men, women, and children—under sixteen or fourteen years of age, employed, and in the last case the number engaged as apprentices, and the conditions under which they are bound; the number of workpeople receiving average wages, and those obtaining less or more than the average. The same observations are to be made relative to the mining population, which formed another subject for a report. Independent of these inquiries, the number of establishments, the motive power (steam, hydraulic, &c.), and in mines the quantities extracted, &c., should form part of the returns.

To the Third Section were referred three questions of great importance: Question 8, the economical condition of the labouring classes—the actual cost of subsistence, divided into necessary expenses of living, the cost of religious, moral, and intellectual education, and the cost of such articles as may be considered luxuries. Question 9, the statistics of pauperism—number of the poor of different sexes and ages, charitable and other institutions, causes of pauperism, cost of maintenance of the poor, institutions designed to avert or diminish pauperism, &c. Question 10, statistics of education—public and private schools, number of scholars, nature of instruction, &c.; and Question 11, comprising crime and the means of its suppression—number and nature of offences committed, penalties inflicted, or the number acquitted, &c.: all being distinguished, as far as possible, by sexes and ages. The reporters and principal speakers on these important questions were, besides the President, MM. Visschers, Horace Say, Legoyt, le Comte Cieszkowski, &c., Ramon de la Sagra, and Ducpetiaux.

Before the conclusion of the Congress, a resolution was passed expressing a hope that the postage reforms would be extended to international systems of postage, and a similar expression of opinion was given as to the assimilation of the commercial laws of different countries.

It would be unjust to conclude even this brief report without a grateful tribute to the generous attentions and hospitality which all the members of the Congress received from the Government of Belgium and the distinguished men of science residing at Brussels. Independent of all the public establishments, and objects of art and interest, being gratuitously shown by the production of the tickets of the members, dinners and soirées were given by the Ministers, and by M. Quetelet, the President of the Statistical Commission, thus enabling the number of eminent men assembled from all parts of Europe to form those social connections, and to impart to each other that knowledge and experience, which may prove of the utmost value hereafter in extending and simplifying the study of statistics. His Majesty the King of the Belgians took the liveliest interest in the proceedings of the Congress, and, besides honouring the meeting by his presence at the discussions, invited a large body of the members to a grand banquet at the Palace, at which the Royal Family, the Ministers, Foreign Ambassadors, and other distinguished guests, were present.

The variety and interesting character of the subjects discussed at the Congress could barely be indicated in so brief a summary as the

foregoing. Much still remains to be accomplished in future meetings; but there cannot be a doubt that the union of so many eloquent writers and scientific men, who have profoundly studied the great social questions of the age, cannot but result in improving the means of collecting and classifying the facts which bear upon them. Governments will thus be enabled to legislate for the true welfare of the people, and philosophers and moralists may correct many theories which, however ingenious, can never be practically useful unless based on that truth which forms the subject of all statistical inquiries.

Suggestions in regard to the Regulation of the Rate of Interest on Landed Securities. By WM. THOS. THOMSON, Manager of the Standard Life Assurance Company and of the Colonial Life Assurance Company.

THE above is the title to a pamphlet just published by Mr. Thomson. The subject is one of such importance, that we should have been glad had our space permitted to give it *in extenso*; as it is, we place before our readers the more prominent parts of it. Mr. Thomson says—

“It has been the practice in Scotland for a considerable period to fix the rate of interest on landed securities periodically, with reference to the views expressed on the subject by, or more correctly the decision of, a meeting held in Edinburgh three months before each money-term of Whitsunday and Martinmas.*

“The parties assembled to discuss the question have not represented by any fixed arrangement, or by appointment, the various moneyed interests of Edinburgh, or of Scotland; but their decisions have always been so much in accordance with the general opinion, and have been so satisfactory, that the constitution of the assembly has not till recently been called into question.

“I have no information to enable me to explain the origin of these meetings, but it is evident that the practice of appealing to their decisions has arisen from a desire on the part of lenders and borrowers to have some mode of fixing the rise and fall of interest according to the value of money, by reference to the opinions of those who were considered best capable of judging, without leaving the adjustment to be matter of bargain between parties as the market rose and fell.

“The Widows’ Fund of the Ministers of the Church of Scotland and of the Professors of the Scottish Universities, established in 1744, was for a considerable period the only moneyed body having considerable sums to lend

* “Changes in the rate of interest were made on three occasions—in 1828, 1829, and 1831—at the intermediate term of Lammas; but I do not think it probable that changes at Lammas or Candlemas will again be made.”